What Is Claimed Is:

1. A film bulk acoustic wave device, comprising:

an acoustic reflective layer formed on a substrate by removing a sacrificial layer on the substrate, thereby becoming an empty space;

an oxidation protective film or etch protecting film formed in a pattern that divides a resonance region to form the acoustic reflective layer on the sacrificial layer;

a thermal oxidation film formed by partially thermally oxidizing the sacrificial layer in an electrode region where the oxidation protective film or the etch protecting film is not formed; and

a lower electrode, a piezoelectric thin film, and an upper electrode on the thermal oxidation film.

2. The device as claimed in claim 1, wherein the sacrificial layer formed on the substrate uses a sacrificial layer substrate structure composed of a silicon-silicon oxide film-silicon.

3. A film bulk acoustic wave device, comprising:

a silicon substrate;

an oxidation protective film or etch protecting film formed in a pattern of dividing a resonance region to form an acoustic reflective layer on the silicon substrate;

a thermal oxidation film formed by partially thermally oxidizing the silicon substrate in an electrode region where the oxidation protective film or etch protecting film is not formed; and

a lower electrode, a piezoelectric thin film and an upper electrode on the thermal oxidation film.

4. The device as claimed in any one of claims 1 to 3, wherein after the thermal oxidation film is formed, the oxidation protective film is removed and the etch protecting film is formed of silicon oxide, nitride or the like in a thickness of hundreds to thousands of angstroms (Å) on the sacrificial layer from which the oxidation protective film is removed.

5. The device as claimed in any one of claims 1 to 3, wherein after the thermal oxidation film is formed, the oxidation protective film is used as the etch protecting film without being removed.

6. The device as claimed in any one of claims 1 to 3, wherein the thermal oxidation film is grown in a portion having no oxidation protective film, is not grown in a center portion where the oxidation protective film remains, and is formed in an inclined manner in an interface portion thereof, whereby the resonance region and the electrode region are interconnected with each other in a gentle slope.

7. A film bulk acoustic wave device including a lower electrode and an upper electrode formed on a substrate, wherein the lower electrode or upper electrode comprises:

a first electrode layer formed by depositing a conductive material having less acoustic loss and good electrical conductivity in a thickness of thousands of angstroms (Å); and

a second electrode layer formed by depositing a noble metal material having low electrical resistance and thus less loss due to the resistance in a thickness of hundreds of angstroms (Å) or less on the first electrode layer to prevent the first electrode layer from being oxidized.

8. The device as claimed in claim 7, wherein the first electrode layer is formed of molybdenum, aluminum, silver or copper, and the second electrode layer is formed of platinum or gold.

9. A method of manufacturing a film bulk acoustic wave device, comprising the steps of:

forming a sacrificial layer of Poly-Si or Si on a substrate;

forming a thermal oxidation film by oxidizing the sacrificial layer in portions except for a portion where the acoustic reflective layer is to be formed;

forming an etch protecting film of silicon oxide or silicon nitride on the

sacrificial layer in a predetermined thickness;

forming a lower electrode by depositing a conductive material in a predetermined pattern on the etch protecting film and the thermal oxidation film;

forming a piezoelectric thin film by depositing a material with a piezoelectric characteristic in a predetermined pattern on the lower electrode and the thermal oxidation film; and

forming an upper electrode by depositing a conductive material in a predetermined pattern on the piezoelectric thin film.

10. A method of manufacturing a film bulk acoustic wave device, comprising the steps of:

forming a thermal oxidation film on a silicon substrate by oxidizing the substrate in portions except for a portion where the acoustic reflective layer is to be formed;

forming an etch protecting film of silicon oxide or silicon nitride on the silicon substrate in a predetermined thickness;

forming a lower electrode by depositing a conductive material in a predetermined pattern on the etch protecting film and the thermal oxidation film;

forming a piezoelectric thin film by depositing a material with piezoelectric characteristics in a predetermined pattern on the lower electrode and the thermal oxidation film; and

forming an upper electrode by depositing a conductive material in a predetermined pattern on the piezoelectric thin film.

11. The method as claimed in claim 9 or 10, wherein the step of forming an oxide film comprises the steps of:

forming an oxidation protective film of silicon nitride film in a thickness of hundreds to thousands of angstroms (Å) on the sacrificial layer only in a portion in which the acoustic reflective layer is to be formed;

forming the thermal oxidation film by partially thermally oxidizing the sacrificial layer in a portion where the oxidation protective film is not formed; and

removing the oxidation protective film.

12. The method as claimed in claim 9 or 10, wherein the oxidation protective film is used as the etch protecting film instead of being removed.

13. The method as claimed in claim 9 or 10, wherein the steps of forming a lower electrode and forming an upper electrode comprises the steps of:

forming the first electrode layer by depositing a conductive material having excellent acoustic characteristics and good electrical conductivity, such as molybdenum, aluminum, silver or copper, in a thickness of thousands of angstroms (Å), and

forming the second electrode layer by depositing a noble metal material having low electrical resistance and accordingly low loss due to the resistance, such as platinum or gold, in a thickness of hundreds of angstroms (Å) or less on the first electrode layer to prevent oxidation of the first electrode layer.

14. A method of manufacturing a film bulk acoustic wave device, comprising the steps of:

forming a sacrificial layer of Poly-Si or Si on a substrate;

forming a lower electrode by depositing a conductive material in a predetermined pattern on the sacrificial layer;

forming a piezoelectric thin film by depositing a material with piezoelectric characteristics in a predetermined pattern on the lower electrode and a thermal oxidation film;

forming an upper electrode by depositing a conductive material in a predetermined pattern on the piezoelectric thin film;

forming a lower electrode/piezoelectric layer/upper electrode and then cutting and separating the substrate for each film bulk acoustic wave device; and

forming an acoustic reflective layer as an empty space by removing the sacrificial layer for each cut and separated film bulk acoustic wave device.

15. The method as claimed in claim 14, wherein the step of cutting a substrate comprises the steps of:

forming a basic piezoelectric activation structure of a lower

electrode/piezoelectric thin film/upper electrode, and then forming and exposing a photoresist layer so that the entire structure is covered and an etching window is formed in part;

cutting the substrate for each film bulk acoustic wave device in a laser cutting method or a sawing cutting method; and

cleaning the substrate to remove residues or foreign materials created from the cut devices and developing the photoresist layer.

16. The method as claimed in claim 14, wherein the step of forming an acoustic reflective layer comprises the step of:

removing the sacrificial layer through the etching window for each film bulk acoustic wave device cut in the cutting step; and

removing the photoresist layer.